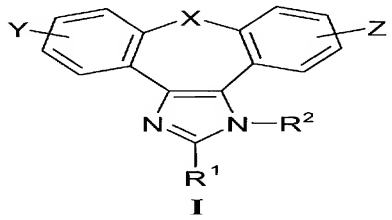
AMENDMENTS TO THE CLAIMS

1. (Currently amended) ~~Use of the compounds of the general~~ A method of treating a disease, damage or disorder of the central nervous system associated with a disorder of neurochemical equilibrium of a biogenic amine or other neurotransmitter, comprising administering to a subject in need thereof a compound of formula **I**



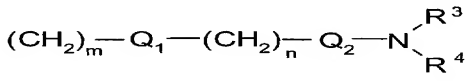
I

wherein

X ~~means~~ is selected from the group consisting of ~~CH_2 or a heteroatom selected from a group consisting of~~ CH_2, O, S, S(=O), $S(=O)_2$ and NR^a, wherein R^a is selected from the group consisting of hydrogen, ~~or a substituent selected from the group consisting of~~ C_1-C_3-alkyl, C_1-C_3-alkanoyl, C_1-C_7-alkoxycarbonyl, C_7-C_{10}-arylmethoxycarbonyl, C_7-C_{10}-aroyl, C_7-C_{10}-arylalkyl, C_3-C_7-alkylsilyl and C_5-C_{10}-alkylsilylalkoxyalkyl;

Y and Z are each independently ~~from each other mean one or more identical or different substituents linked to any available carbon atom~~ selected from the group consisting of hydrogen, halogen, C_1-C_4- alkyl, C_2-C_4-alkenyl, C_2-C_4-~~alkinyl~~ alkynyl, halo-C_1-C_4-alkyl, hydroxy, C_1-C_4-alkoxy, trifluoromethoxy, C_1-C_4-alkanoyl, amino, amino-C_1-C_4-alkyl, *N*-(C_1-C_4-alkyl)amino, *N,N*-di(C_1-C_4-alkyl)amino, thiol, C_1-C_4-alkylthio, sulfonyl, C_1-C_4-alkylsulfonyl, sulfinyl, C_1-C_4-alkylsulfinyl, carboxy, C_1-C_4-alkoxycarbonyl, cyano and nitro;

R^1 ~~means~~ is selected from the group consisting of CHO, $CH{=}CHOCOCH_3$, $(CH_2)_mOH$ wherein m ~~represents~~ is an integer from 1 to 3, ~~or~~ and a substituent of the formula **II**:



II

wherein

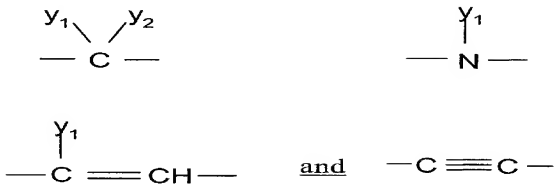
R^3 and R^4 ~~simultaneously or~~ are each independently ~~from each other have the meaning of~~hydrogen, C_1-C_4-alkyl or aryl ~~having the meaning of an aromatic ring as well as fused aromatic rings containing one ring with at least 6 carbon atoms or two rings with totally 10 carbon atoms and with alternating double bonds between carbon atoms~~; or

R^3 and R^4 taken together with the nitrogen atom to which they are attached form ~~N have the meaning of~~ a heterocycle or heteroaryl group ~~wherein heterocycle relates to five-member or six-member fully saturated or partly unsaturated heterocycle group containing at least one hetero atom selected from the group consisting of O, S and N and where said heterocycle can be~~ that is optionally substituted with one or two substituents which are selected from the group consisting of halogen, C_1-C_4 alkyl, cyano, nitro, hydroxy, C_1-C_4 alkoxy, thiol, C_1-C_4 alkylthio, amino, *N*-(C_1-C_4) alkylamino, *N,N*-di(C_1-C_4-alkyl)-amino, sulfonyl, C_1-C_4 alkylsulfonyl, sulfinyl, and C_1-C_4 alkylsulfinyl; ~~and wherein heteroaryl relates to aromatic and partially aromatic groups of a monocyclic or bicyclic ring with 4 to 12 carbon atoms and at least one of them being heteroatom selected from the group consisting of O, S and N and where said heteroaryl can be optionally substituted with one or two substituents which are selected from halogen, C_1-C_4 alkyl, cyano, nitro, hydroxy, C_1-C_4 alkoxy, thiol, C_1-C_4 alkylthio, amino, *N*-(C_1-C_4) alkylamino , *N,N*-di(C_1-C_4-alkyl)-amino, sulfonyl, C_1-C_4 alkylsulfonyl, sulfinyl, C_1-C_4 alkylsulfinyl;~~

m ~~has the meaning of~~ is an integer from 1 to 3;

n ~~has the meaning of~~ is an integer from 0 to 3;

Q_1 and Q_2 are each independently selected from the group consisting of ~~from each other have the meaning of~~ oxygen, sulfur, ~~or a group:~~



wherein substituents

y_1 and y_2 are each independently selected from the group consisting of ~~from each other have the meaning of~~ hydrogen, halogen, C_1-C_4-alkyl optionally substituted with ~~one, two, three~~ or more substituents selected from the group consisting of halogen ~~atom~~, hydroxy, C_1-C_4 alkoxy, thiol, C_1-C_4 alkylthio, amino, N-(C_1-C_4) alkylamino, N,N-di(C_1-C_4-alkyl)-amino, sulfonyl, C_1-C_4 alkylsulfonyl, sulfinyl and C_1-C_4 alkylsulfinyl; hydroxy, C_1-C_4-alkoxy, C_1-C_4-alkanoyl, thiol, C_1-C_4-alkylthio, sulfonyl, C_1-C_4-alkylsulfonyl, sulfinyl, C_1-C_4-alkylsulfinyl, cyano, nitro, ~~or~~ and an ~~monocyclic or bicyclic~~ aryl group ~~having from 6 to 10 carbon atoms and altering double bond and said group can be~~ wherein said ary group is optionally substituted with one or two substituents selected from the group consisting of fluoro, chloro, C_1-C_4 alkyl, cyano, nitro, hydroxy, C_1-C_4 alkoxy, thiol, C_1-C_4 alkylthio, amino, *N*-(C_1-C_4) alkylamino, *N,N*-di(C_1-C_4-alkyl)-amino, sulfonyl, C_1-C_4 alkylsulfonyl, sulfinyl, C_1-C_4 alkylsulfinyl and ~~can be~~ is linked to the rest of the molecule ~~by any available carbon atom~~ via a direct bond or ~~via~~ a C_1-C_4 alkylene group; ~~hydroxy, C_1-C_4-alkoxy, C_1-C_4-alkanoyl, thiol, C_1-C_4-alkylthio, sulfonyl, C_1-C_4-alkylsulfonyl, sulfinyl, C_1-C_4-alkylsulfinyl, cyano, nitro,~~ or

y_1 and y_2 taken together with the carbon atom to which they are attached ~~together~~ form a carbonyl group or an imino group;

R^2 ~~means~~ is selected from the group consisting of hydrogen, ~~an optionally substituted~~ a C_1-C_7-alkyl group optionally substituted with one or more substituents selected from the group consisting of halogen, hydroxy, C_1-C_4 alkoxy, thiol, C_1-C_4 alkylthio, amino, N-(C_1-C_4) alkylamino, N,N-di(C_1-C_4-alkyl)-amino, sulfonyl, C_1-C_4 alkylsulfonyl, sulfinyl

and C_1-C_4 alkylsulfinyl; ~~or~~ an aryl group optionally substituted with one or two substituents selected from the group consisting of fluoro, chloro, C_1-C_4 alkyl, cyano, nitro, hydroxy, C_1-C_4 alkoxy, thiol, C_1-C_4 alkylthio, amino, *N*-(C_1-C_4) alkylamino, *N,N*-di(C_1-C_4-alkyl)-amino, sulfonyl, C_1-C_4 alkylsulfonyl, sulfinyl, C_1-C_4 alkylsulfinyl; ~~wherein an optionally substituted alkyl or aryl have the meaning as defined above,~~ C_1-C_7-alkanoyl, C_1-C_7-alkoxycarbonyl, C_7-C_{10}-arylalkyloxycarbonyl, C_7-C_{10}-aroyl, C_7-C_{10}-arylalkyl, C_3-C_7-alkylsilyl, $C_6H_5CH_2CH_2$ and $CH_2OCH_2CH_2Si(CH_3)_3$;

and of their a pharmaceutically acceptable salt or solvate thereof ~~salts and solvates for the manufacture of pharmaceutical formulations for the treatment and prevention of diseases, damages and disorders of the central nervous system caused by disorders of neurochemical equilibrium of biogenic amines or other neurotransmitters~~.

2. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the ~~selected~~ biogenic ~~amines are~~ amine is serotonin, norepinephrine ~~and~~ or dopamine.

3. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the neurotransmitter is glutamate.

4. (Currently amended) ~~Use according to claims 1, 2 or 3 wherein the compounds~~ The method of claim 1, wherein the compound of ~~the general~~ formula **I** ~~act upon the neurochemical equilibrium by regulating~~ regulates the synthesis, ~~storing, releasing, metabolizing~~ storage, release, metabolism ~~and/or~~ reabsorption, or receptor binding of said biogenic ~~amines~~ amine or ~~neurotransmitters~~ neurotransmitter ~~and binding to their receptors~~.

5. (Currently amended) ~~Use according to~~ The method of claim 4, wherein the ~~compounds~~ compound of ~~the general~~ formula **I** ~~show binding affinity~~ binds to a receptor of ~~one or more~~ a biogenic ~~amines~~ amine.

6. (Currently amended) ~~Use according to~~ The method of claim 5, wherein the ~~compounds~~ compound of ~~the general~~ formula **I** ~~show a significant binding affinity~~ binds to a serotonin 5-HT_{2A} ~~and~~ or 5-HT_{2C} ~~receptors~~ receptor.

7. (Currently amended) ~~Use according to~~ The method of claim 6, wherein the ~~compounds~~ compound of ~~the general~~ formula **I** ~~show binding affinity to selected~~ binds to a serotonin 5-HT_{2A} or 5-HT_{2C} ~~receptors~~ receptor with an ~~in a concentration of~~ IC_{50}~~<1μM~~ of less than 1μM.

8. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the ~~compounds~~ compound of ~~the general~~ formula **I** ~~act as~~ binds to a σ1 receptor ~~ligands in a concentration of~~ with an IC_{50}~~<1μM~~ of less than 1 μM ~~by modulating central neurotransmitter system~~.

9. (Currently amended) ~~Use according to claims 1, 6 or 8~~ The method of claim 1, wherein the c~~ompounds~~ compound of ~~the general~~ formula **I** ~~show dual binding affinity~~ bind to a σ1 receptor and to at least one serotonin receptor selected from 5-HT_{2A} and 5-HT_{2C}.

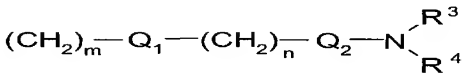
10. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the ~~diseases and disorders~~ disease or disorder of the central nervous system ~~are~~ is selected from the group consisting of anxiety, depression ~~and modest depression~~, bipolar disorders, sleeping disorders, sexual disorders, psychosis, borderline psychosis, schizophrenia, migraine, personality disorders, ~~and~~ obsessive-compulsive disorders, social phobia, ~~or~~ panic attacks, organic mental disorders in children, aggression, memory disorders, ~~and~~ personality disorders in elderly people, addiction, obesity, bulimia and ~~similar~~ other eating disorders, snoring, and premenstrual troubles.

11. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the ~~damages of~~ damage to the central nervous system ~~are~~ is caused by trauma, brain stroke, neurodegenerative diseases, cardiovascular disorders ~~such as high blood pressure~~, thrombosis, infarct ~~as well as by~~ or gastrointestinal disorders.

12. (Currently amended) ~~Use according to~~ The method of claim 1 wherein X ~~represents~~ is O, S, or NR^a, wherein R^a is hydrogen or a substituent selected from the group consisting of C_1-C_3-alkyl, C_1-C_3-alkanoyl, C_7-C_{10}-aroyl, and C_7-C_{10}-arylalkyl.

13. (Currently amended) Use according to The method of ~~claims 1 or 12~~ claim 1, wherein Y and Z are each independently ~~from each other mean one or more identical or different substituents linked to any available carbon atom~~ selected from the group consisting of hydrogen, fluorine, chlorine, bromine, C_1-C_4-alkyl, halo-C_1-C_4-alkyl, hydroxy, C_1-C_4-alkoxy, trifluoromethoxy, C_1-C_4-alkanoyl, amino, amino-C_1-C_4-alkyl, *N*-(C_1-C_4-alkyl)amino, *N,N*-di(C_1-C_4-alkyl)amino, thiol, C_1-C_4-alkylthio, cyano and nitro.

14. (Currently amended) ~~Use according to claims 1, 12 or 13~~ The method of claim 1, wherein R^1 ~~has the meaning~~ is selected from the group consisting of CHO, $CH{=}CHOCOCH_3$, $(CH_2)_mOH$ wherein m ~~represents~~ is an integer from 1 to 3; ~~or~~ and a substituent ~~represented with~~ of the formula **II**:



II

wherein

R^3 and R^4 are each independently ~~simultaneously or independently from each other represent~~ hydrogen, C_1-C_4-alkyl, or aryl ~~werein aryl has the meaning as defined above~~ or

R^3 and R^4 taken together with the nitrogen atom to which they are attached form a ~~together with N have the meaning of~~ heterocycle or heteroaryl group selected from the group consisting of morpholine-4-yl, piperidine-1-yl, pyrrolidine-1-yl, imidazole-1-yl and piperazine-1-yl;

m ~~has the meaning of~~ is an integer from 1 to 3;

n ~~has the meaning of~~ is an integer from 0 to 3; and

Q_1 and Q_2 are each independently ~~from each other have the meaning of~~ oxygen or CH_2 ~~group~~.

15. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the ~~compounds~~ compound of ~~the general~~ formula **I**, ~~pharmaceutically acceptable salts and solvates thereof are~~ is selected from the group consisting of:

1-methyl-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

1-methyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

1-phenethyl-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

1-phenethyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

5-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

11-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

5-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

11-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulene-2-carbaldehyde;

3-(1-phenethyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-yl)-acrylic acid methyl ester;

(1-methyl-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-yl)-methanol;

(1-methyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-yl)-methanol;

(1-phenethyl-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-yl)-methanol;

(1-phenethyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-yl)-methanol;

[1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-yl]-methanol;

[1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-yl]-methanol;

[5-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-yl]-methanol;

[11-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-yl]-methanol;

[5-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-yl]-methanol;

[11-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-yl]-methanol;

3-(1-phenethyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-yl)-propane-1-ol;

dimethyl-[2-(1-methyl-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-amine;

dimethyl-[3-(1-methyl-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-amine;

dimethyl-[2-(1-methyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-amine;

dimethyl-[3-(1-methyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-amine;

dimethyl-[2-(1-phenethyl-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-amine;

dimethyl-[3-(1-phenethyl-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-amine;

dimethyl-[2-(1-phenethyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-amine;

dimethyl-[3-(1-phenethyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-amine;

dimethyl-{2-[1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-ethyl}-amine;

dimethyl-[2-(1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-amine;

dimethyl-{3-[1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-ylmethoxy]-propyl}-amine;

dimethyl-[3-(1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-amine;

3-[1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-propylamine;

3-(1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propylamine;

dimethyl-{2-[1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-ethyl}-amine;

dimethyl-[2-(1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-amine;

dimethyl-{3-[1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-propyl}-amine;

dimethyl-[3-(1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-amine;

{3-[5-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-propyl}-dimethyl-amine;

[3-(5-chloro-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-dimethyl-amine;

3-[5-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-propylamine;

3-(5-chloro-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propylamine;

{2-[11-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-ethyl}-dimethyl-amine;

[2-(11-chloro-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-dimethyl-amine;

{3-[11-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-propyl}-dimethyl-amine;

[3-(11-chloro-1H-8-oxa-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-dimethyl-amine;

{2-[5-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-ethyl}-dimethyl-amine;

[2-(5-chloro-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-dimethyl-amine;

{3-[5-chloro-1-(2-trimethylsilyl-ethoxymethyl)-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy]-propyl}-dimethyl-amine;

[3-(5-chloro-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-dimethyl-amine; ~~and~~

dimethyl-{3-[3-(1-phenethyl-1H-8-thia-1,3-diaza-dibenzo[e,h]azulen-2-yl)-propoxy]-propyl}-amine; and

a pharmaceutically acceptable salt or solvate thereof.